DATE: 09/27/2001

TIME: 14:13:38

OIPE

Input Set : A:\0020-4877P.ST25.txt Output Set: N:\CRF3\09272001\1884987.raw 3 <110> APPLICANT: NAGATA, Shiqekazu et al 5 <120 > TITLE OF INVENTION: DNA CODING FOR HUMAN CELL SURFACE ANTIGEN 7 <130> FILE REFERENCE: 0020-4877P 9 <140 > CURRENT APPLICATION NUMBER: US 09/884,987 10 -141> CURRENT FILING DATE: 2001-06-21 12 <160 > NUMBER OF SEQ ID NOS: 11 14 .170 > SOFTWARE: PatentIn version 3.0 16 < 210 > SEQ ID NO: 1ENTERED 17 <211> LENGTH: 2534 18 < 212> TYPE: DNA 19 < 213 > ORGANISM: Homo sapiens 21 <220 > FEATURE: 22 <221> NAME/KEY: polyA_site 23 <222> LOCATION: (1831)..(1836) 25 <220> FEATURE: 16 <221> NAME/KEY: mat_peptide 27 <222> LOCATION: (243)..() 29 <220> FEATURE: 30 <221> NAME/KEY: sig_peptide 31 < 222 > LOCATION: (195)..(242)33 <220> FEATURE: 34 <221> NAME/KEY: CDS 35 <222> LOCATION: (195)..(1199) 37 <:220> FEATURE: 38 <221> NAME/KEY: polyA_site 39 <222> LOCATION: (2352)..(2357) 41 <220> FEATURE: 42 <221> NAME/KEY: polyA_site 43 <222> LOCATION: (2518)..(2532) 45 +400> SEQUENCE: 1 46 gacgettetg gygagtgagg gaageggttt aegagtgaet tggetggage etcaggggeg 60 48 ggcactggca cggaacacac cotgaggcca gccctggctg cocaggcgga gctycotett 120 50 ctcccgcggg ttggtggacc cgctcagtac ggagttgggg aagctctttc acttcggagg 180 52 attgeteaac aace atg etg gge ate tgg ace etc eta eet etg gtt ett 230 53 Met Leu Gly Ile Trp Thr Leu Leu Pro Leu Val Leu 54 -15 -1056 acg tot gtt gct aga tta tog too aaa agt gtt aat goo caa gtg act 278 57 Thr Ser Val Ala Arg Leu Ser Ser Lys Ser Val Asn Ala Gln Val Thr - 1 5 60 gae ate aac tee aag gga ttg gaa ttg agg aag act gtt act aca gtt 326 6] Asp Ile Asn Ser Lys Gly Leu Glu Leu Arg Lys Thr Val Thr Thr Val 15 20 64 gag act cag aac ttg gaa ggc ctg cat cat gat ggc caa ttc tgc cat 374 65 Glu Thr Gln Asn Leu Glu Gly Leu His His Asp Gly Gln Phe Cys His 35 40 422 68 aag eee tgt eet eea ggt gaa agg aaa get agg gae tge aca gte aat

69 Lys Pro Cys Pro Pro Gly Glu Arg Lys Ala Arg Asp Cys Thr Val Asn

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/884,987

RAW SEQUENCE LISTING

DATE: 09/27/2001 PATENT APPLICATION: US/09/884,987 TIME: 14:13:38

Input Set : A:\0020-4877P.ST25.txt

Output Set: N:\CRF3\09272001\1884987.raw

70 45 50 55 60	
72 ggg gat gaa cca gae tge gtg eee tge caa gaa ggg aag gag tac aca	470
73 Gly Asp Glu Pro Asp Cys Val Pro Cys Gln Glu Gly Lys Glu Tyr Thr	
74 65 70 75	
76 gac aaa gcc cat ttt tot toc aaa tgc aga aga tgt aga ttg tgt gat	518
77 Asp Lys Ala His Phe Ser Ser Lys Cys Arg Arg Cys Arg Leu Cys Asp	
78 80 85 90	
80 gaa gga cat ggc tta gaa gtg gaa ata aac tgc acc cgg acc cag aat	566
81 Glu Gly His Gly Leu Glu Val Glu Ile Asn Cys Thr Arg Thr Gln Asn	
82 95 100 105	
84 acc aag tgc aga tgt aaa cca aac ttt ttt tgt aac tct act gta tgt	614
85 Thr Lys Cys Arg Cys Lys Pro Asn Phe Phe Cys Asn Ser Thr Val Cys	
86 110 115 120	660
88 gaa cac tgt gac cet tgc acc aaa tgt gaa cat gga atc atc aag gaa	662
89 Glu His Cys Asp Pro Cys Thr Lys Cys Glu His Gly Ile Ile Lys Glu 90 125 130 135 140	
	710
92 tgc aca ctc acc agc acc acc agg tgc aca gag gaa gga tcc aga tct	710
93 Cys Thr Leu Thr Ser Asn Thr Lys Cys Lys Glu Glu Gly Ser Arg Ser 94 145 150 155	
96 aac ttg ggg tgg ctt tgt ctt ctt ctt ttg cca att cca cta att gtt	758
97 Asn Leu Gly Trp Leu Cys Leu Leu Leu Pro Ile Pro Leu Ile Val	730
98 160 165 170	
100 tgg gtg aag aga aag gaa gta cag aaa aca tgc aga aag cac aga aag	806
101 Trp Val Lys Arg Lys Glu Val Gln Lys Thr Cys Arg Lys His Arg Lys	000
102 175 180 185	
104 gaa aac caa ggt tet cat gaa tet eea aee tta aat eet gaa aca gtg	854
105 Glu Asn Gln Gly Ser His Glu Ser Pro Thr Leu Asn Pro Glu Thr Val	
106 190 195 200	
108 gca ata aat tta tct gat gtt gac ttg agt aaa tat atc acc act att	902
109 Ala Ile Asn Leu Ser Asp Val Asp Leu Ser Lys Tyr Ile Thr Thr Ile	
110 205 210 215 220	
112 gct gga gtc atg aca cta agt caa gtt aaa ggc ttt gtt cga aag aat	950
113 Ala Gly Val Met Thr Leu Ser Gln Val Lys Gly Phe Val Arg Lys Asn	
114 225 230 235	
li6 ggt gtc aat gaa gcc aaa ata gat gag atc aag aat gac aat gtc caa	998
117 Gly Val Asn Glu Ala Lys lle Asp Glu Ile Lys Asn Asp Asn Val Gln	
118 240 245 250	
120 gac aca gca gaa cag aaa gtt caa ctg ctt cgt aat tgg cat caa ctt	1046
121 Asp Thr Ala Glu Gln Lys Val Gln Leu Leu Arg Asn Trp His Gln Leu	
=	
122 255 260 265	1001
122 255 260 265 124 cat gga aag aaa gaa qcg tat gac aca ttg att aaa gat ctc aaa aaa	1094
122 255 260 265 124 cat gga aag aaa gaa qcg tat gac aca ttg att aaa gat ctc aaa aaa 125 His Gly Lys Lys Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys	1094
122 255 260 265 124 cat gga aag aaa gaa qcg tat gac aca ttg att aaa gat ctc aaa aaa 125 His Gly Lys Lys Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys 126 270 275 280	
122 255 260 265 124 cat gga aag aaa gaa qcg tat gac aca ttg att aaa gat ctc aaa aaa 125 His Gly Lys Lys Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys 126 270 275 280 128 gcc aat ctt tgt act ctt gca gag aaa att cag act atc atc ctc aag	1094 1142
122 255 260 265 124 cat gga aag aaa gaa qcg tat gac aca ttg att aaa gat ctc aaa aaa 125 His Gly Lys Lys Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys 126 270 275 280 128 gcc aat ctt tgt act ctt gca gag aaa att cag act atc atc ctc aag 129 Ala Asn Leu Cys Thr Leu Ala Glu Lys Ile Gln Thr Ile Ile Leu Lys	
122 255 260 265 124 cat gga aag aaa gaa qcg tat gac aca ttg att aaa gat ctc aaa aaa 125 His Gly Lys Lys Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys 126 270 275 280 128 gec aat ctt tgt act ctt gca gag aaa att cag act atc atc ctc aag 129 Ala Asn Leu Cys Thr Leu Ala Glu Lys Ile Gln Thr Ile Ile Leu Lys 130 285 290	1142
122 255 260 265 124 cat gga aag aaa gaa qcg tat gac aca ttg att aaa gat ctc aaa aaa 125 His Gly Lys Lys Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys 126 270 275 280 128 gcc aat ctt tgt act ctt gca gag aaa att cag act atc atc ctc aag 129 Ala Asn Leu Cys Thr Leu Ala Glu Lys Ile Gln Thr Ile Ile Leu Lys 130 285 290 295 300 132 gac att act agt gac tca gaa aat tca aac ttc aga aat gaa atc caa	
122 255 260 265 124 cat gga aag aaa gaa qcg tat gac aca ttg att aaa gat ctc aaa aaa 125 His Gly Lys Lys Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys 126 270 275 280 128 gec aat ctt tgt act ctt gca gag aaa att cag act atc atc ctc aag 129 Ala Asn Leu Cys Thr Leu Ala Glu Lys Ile Gln Thr Ile Ile Leu Lys 130 285 290	1142

RAW SEQUENCE LISTING DATE: 09/27/2001

PATENT APPLICATION: US/09/884,987 TIME: 14:13:38

Input Set : A:\0020-4877P.ST25.txt

Output Set: N:\CRF3\09272001\1884987.raw

		ttg		tag	agtg	aaa	aaca	acaa	at t	cagt	tctg	a gta	atat	gcaa			1239
		Leu															
			_						_	-						rtgggt	
																tctcat	
																agtaaa	
				-	_				_	-	_		_	-		agatta	
										-	_				_	gtacaa	
																ttttg	
																aattct	
	_	_									_					atgtaa	
	-		_	_		-									_	cacagt	
			_										-			aaatta	
								_			-					ttcttt	
																ctccat	
			-				-	-		-			_	_		caccaa	
																gtttgg	
																ttgcaa	
		_	_		_							_				aatgto	
		-		_				_			_		_			atctgg	,
				-	_				_		-		-			tactac	
			-				_	_	_		_	_			_	taatat	
																tggaac	
											cccc	ttg	tgtt	tgg -	aatta	ataaaa	
		aggt				at t	aaata	aatg	t tt	ttg							2534
105	-01	O															
TRO	< 2/10	0> S.	EQ II	D NO	: 2												
		0> S. 1> L.															
186 187	<21:	1 > L: 2 > T:	ENGTI YPE:	H: 3. PRT	35												
186 187 188	<21: <21: <21:	1 > L: 2 > T: 3 > O:	ENGTI YPE: RGANI	H: 3: PRT ISM:	35 Homo	o sag	piens	3									
186 187 188 190	<21: <21: <21: <40:	1 > L; 2 > T; 3 > O; 0 > S;	ENGTI YPE: RGANI EQUEI	H: 3: PRT ISM: NCE:	35 Homo 2		=										
186 187 188 190	<21: <21: <21: <40:	1 > L: 2 > T: 3 > O:	ENGTI YPE: RGANI EQUEI	H: 3: PRT ISM: NCE:	35 Homo 2		=		Pro	Leu	Val	Leu	Thr	Ser	Val	Ala	
186 187 188 190 192 193	<21: <21: <21: <400 Met	1 > L2 2 > T3 3 > O1 0 > S1 Leu -15	ENGTI YPE: RGAN: EQUEI Gly	H: 31 PRT ISM: NCE: Ile	35 Homo 2 Trp	Thr	Leu -10	Leu				- 5				-1	
186 187 188 190 192 193 196	<21: <21: <21: <400 Met	1 > L1 2 > T1 3 > O1 0 > S1 Leu	ENGTI YPE: RGAN: EQUEI Gly	H: 31 PRT ISM: NCE: Ile	35 Homo 2 Trp	Thr	Leu -10	Leu				- 5				-1	
186 187 188 190 192 193 196 197	<21: <21: <40: Met Arg	1> L: 2> T: 3> O: 0> S: Leu -15 Leu	ENGTI YPE: RGAN: EQUEI Gly Ser	H: 3: PRT ISM: NCE: Ile Ser	Homo 2 Trp Lys 5	Thr	Leu -10 Val	Leu Asn	Ala	Gln 10	Val	-5 Thr	Asp	Ile	Asn 15	-1 Ser	
186 187 188 190 192 193 196 197 200	<21: <21: <40: Met Arg	1 > L2 2 > T3 3 > O1 0 > S1 Leu -15	ENGTI YPE: RGAN: EQUEI Gly Ser	H: 3: PRT ISM: NCE: Ile Ser	Homo 2 Trp Lys 5	Thr	Leu -10 Val	Leu Asn	Ala	Gln 10	Val	-5 Thr	Asp	Ile	Asn 15	-1 Ser	
186 187 188 190 192 193 196 197 200 201	<21: <21: <400 Met Arg 1 Lys	1> L: 2> T' 3> OI 0> SI Leu -15 Leu Gly	ENGTI YPE: RGAN: EQUEI Gly Ser Leu	H: 3: PRT ISM: NCE: Ile Ser Glu 20	Homo 2 Trp Lys 5 Leu	Thr Ser Arg	Leu -10 Val Lys	Leu Asn Thr	Ala Val 25	Gln 10 Thr	Val Thr	-5 Thr Val	Asp Glu	Ile Thr 30	Asn 15 Gln	-1 Ser Asn	
186 187 188 190 192 193 196 197 200 201	<21: <21: <400 Met Arg 1 Lys	1> L: 2> T: 3> O: 0> S: Leu -15 Leu	ENGTI YPE: RGAN: EQUEI Gly Ser Leu	H: 3: PRT ISM: NCE: Ile Ser Glu 20	Homo 2 Trp Lys 5 Leu	Thr Ser Arg	Leu -10 Val Lys	Leu Asn Thr	Ala Val 25	Gln 10 Thr	Val Thr	-5 Thr Val	Asp Glu	Ile Thr 30	Asn 15 Gln	-1 Ser Asn	
186 187 188 190 192 193 196 197 200 201 204 205	<21: <21: <400 Met Arg 1 Lys	1> L2 2> T 3> O1 0> S1 Leu -15 Leu Gly	ENGTI YPE: RGAN: EQUEI Gly Ser Leu Gly 35	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu	Homo 2 Trp Lys 5 Leu	Thr Ser Arg	Leu -10 Val Lys Asp	Leu Asn Thr Gly 40	Ala Val 25 Gln	Gln 10 Thr	Val Thr Cys	-5 Thr Val His	Asp Glu Lys 45	Ile Thr 30 Pro	Asn 15 Gln Cys	-1 Ser Asn Pro	
186 187 188 190 192 193 196 197 200 201 204 205	<21: <21: <400 Met Arg 1 Lys	1> L: 2> T' 3> OI 0> SI Leu -15 Leu Gly	ENGTI YPE: RGAN: EQUEI Gly Ser Leu Gly 35	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu	Homo 2 Trp Lys 5 Leu	Thr Ser Arg	Leu -10 Val Lys Asp	Leu Asn Thr Gly 40	Ala Val 25 Gln	Gln 10 Thr	Val Thr Cys	-5 Thr Val His	Asp Glu Lys 45	Ile Thr 30 Pro	Asn 15 Gln Cys	-1 Ser Asn Pro	
186 187 188 190 192 193 196 197 200 201 204 205 208 209	<21: <21: <400 Met Arg 1 Lys Leu	1> L: 2> T' 3> OI 0> SI Leu -15 Leu Gly Glu Gly 50	ENGTH YPE: RGANT EQUEN Gly Ser Leu Gly 35 Glu	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg	Homo 2 Trp Lys 5 Leu His	Thr Ser Arg His	Leu -10 Val Lys Asp Arg	Leu Asn Thr Gly 40 Asp	Ala Val 25 Gln Cys	Gln 10 Thr Phe Thr	Val Thr Cys Val	-5 Thr Val His Asn 60	Asp Glu Lys 45 Gly	Ile Thr 30 Pro	Asn 15 Gln Cys	-1 Ser Asn Pro	
186 187 188 190 192 193 196 197 200 201 204 205 208 209	<21: <21: <400 Met Arg 1 Lys Leu	1> L2 2> T 3> O1 0> S1 Leu -15 Leu Gly Glu	ENGTH YPE: RGANT EQUEN Gly Ser Leu Gly 35 Glu	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg	Homo 2 Trp Lys 5 Leu His	Thr Ser Arg His	Leu -10 Val Lys Asp Arg	Leu Asn Thr Gly 40 Asp	Ala Val 25 Gln Cys	Gln 10 Thr Phe Thr	Val Thr Cys Val	-5 Thr Val His Asn 60	Asp Glu Lys 45 Gly	Ile Thr 30 Pro	Asn 15 Gln Cys	-1 Ser Asn Pro	
186 187 188 190 192 193 196 197 200 201 204 205 208 209	<21: <21: <400 Met Arg 1 Lys Leu Pro	1> L: 2> T' 3> OI 0> SI Leu -15 Leu Gly Glu Gly 50	ENGTH YPE: RGANT EQUEN Gly Ser Leu Gly 35 Glu	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg	Homo 2 Trp Lys 5 Leu His	Thr Ser Arg His	Leu -10 Val Lys Asp Arg	Leu Asn Thr Gly 40 Asp	Ala Val 25 Gln Cys	Gln 10 Thr Phe Thr	Val Thr Cys Val	-5 Thr Val His Asn 60	Asp Glu Lys 45 Gly	Ile Thr 30 Pro	Asn 15 Gln Cys	-1 Ser Asn Pro	
186 187 188 190 192 193 196 197 200 201 204 205 208 209 212 213	<21: <21: <400 Met Arg 1 Lys Leu Pro Asp 65	1> L: 2> T' 3> OI 0> SI Leu -15 Leu Gly Glu Gly 50	ENGTH YPE: RGAN: EQUEN Gly Ser Leu Gly 35 Glu Val	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg Pro	Homo 2 Trp Lys 5 Leu His Lys	Thr Ser Arg His Ala Gln 70	Leu -10 Val Lys Asp Arg 55 Glu	Leu Asn Thr Gly 40 Asp	Ala Val 25 Gln Cys Lys	Gln 10 Thr Phe Thr	Val Thr Cys Val Tyr	-5 Thr Val His Asn 60 Thr	Asp Glu Lys 45 Gly Asp	Ile Thr 30 Pro Asp	Asn 15 Gln Cys Glu Ala	-1 Ser Asn Pro Pro His 80	
186 187 188 190 192 193 196 197 200 201 204 205 208 209 212 213	<21: <21: <400 Met Arg 1 Lys Leu Pro Asp 65	1> L: 2> T' 3> O' 0> S' Leu -15 Leu Gly Glu Gly 50 Cys	ENGTH YPE: RGAN: EQUEN Gly Ser Leu Gly 35 Glu Val	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg Pro	Homo 2 Trp Lys 5 Leu His Lys	Thr Ser Arg His Ala Gln 70	Leu -10 Val Lys Asp Arg 55 Glu	Leu Asn Thr Gly 40 Asp	Ala Val 25 Gln Cys Lys	Gln 10 Thr Phe Thr	Val Thr Cys Val Tyr	-5 Thr Val His Asn 60 Thr	Asp Glu Lys 45 Gly Asp	Ile Thr 30 Pro Asp	Asn 15 Gln Cys Glu Ala	-1 Ser Asn Pro Pro His 80	
186 187 188 190 192 193 196 197 200 201 204 205 208 209 212 213 216 217 220	<21: <21: <400 Met Arg 1 Lys Leu Pro Asp 65 Phe	1> L: 2> T' 3> O' 0> S' Leu -15 Leu Gly Glu Gly 50 Cys	ENGTH YPE: RGAN: EQUEN Gly Ser Leu Gly 35 Glu Val	H: 3: PRT ISM: ISM: NCE: Ile Ser Glu 20 Leu Arg Pro Lys	Homo 2 Trp Lys 5 Leu His Cys Cys 85	Thr Ser Arg His Ala Gln 70 Arg	Leu -10 Val Lys Asp Arg 55 Glu	Leu Asn Thr Gly 40 Asp Gly Cys	Ala Val 25 Gln Cys Lys Arg	Gln 10 Thr Phe Thr Glu Leu 90	Val Thr Cys Val Tyr 75 Cys	-5 Thr Val His Asn 60 Thr	Asp Glu Lys 45 Gly Asp Glu	Thr 30 Pro Asp Lys	Asn 15 Gln Cys Glu Ala His 95	-1 Ser Asn Pro Pro His 80 Gly	
186 187 188 190 192 193 196 197 200 201 204 205 208 209 212 213 216 217 220 221	<21: <21: <400 Met Arg 1 Lys Leu Pro Asp 65 Phe Leu	1> L: 2> T' 3> O' 0> S' Leu -15 Leu Gly Glu Gly 50 Cys Ser Glu	ENGTH YPE: RGAN: RGAN: EQUEN Gly Ser Leu Gly 35 Glu Val Ser Val	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg Pro Lys Glu 100	Homo 2 Trp Lys 5 Leu His Cys Cys 85	Thr Ser Arg His Ala Gln 70 Arg	Leu -10 Val Lys Asp Arg 55 Glu Arg	Leu Asn Thr Gly 40 Asp Gly Cys Thr	Ala Val 25 Gln Cys Lys Arg Arg 105	Gln 10 Thr Phe Thr Glu Leu 90 Thr	Val Thr Cys Val Tyr 75 Cys Gln	-5 Thr Val His Asn 60 Thr Asp	Asp Glu Lys 45 Gly Asp Glu Thr	Thr 30 Pro Asp Lys Gly Lys 110	Asn 15 Gln Cys Glu Ala His 95 Cys	-1 Ser Asn Pro Pro His 80 Gly Arg	
186 187 188 190 192 193 196 197 200 201 204 205 208 212 213 216 217 220 221 224	<21: <21: <400 Met Arg 1 Lys Leu Pro Asp 65 Phe Leu	1> L: 2> T' 3> O! 0> S! Leu -15 Leu Gly Glu Gly 50 Cys	ENGTH YPE: RGAN: RGAN: EQUEN Gly Ser Leu Gly 35 Glu Val Ser Val	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg Pro Lys Glu 100	Homo 2 Trp Lys 5 Leu His Cys Cys 85	Thr Ser Arg His Ala Gln 70 Arg	Leu -10 Val Lys Asp Arg 55 Glu Arg	Leu Asn Thr Gly 40 Asp Gly Cys Thr	Ala Val 25 Gln Cys Lys Arg Arg 105	Gln 10 Thr Phe Thr Glu Leu 90 Thr	Val Thr Cys Val Tyr 75 Cys Gln	-5 Thr Val His Asn 60 Thr Asp	Asp Glu Lys 45 Gly Asp Glu Thr	Thr 30 Pro Asp Lys Gly Lys 110	Asn 15 Gln Cys Glu Ala His 95 Cys	-1 Ser Asn Pro Pro His 80 Gly Arg	
186 187 188 190 192 193 196 197 200 201 204 205 213 216 217 220 221 224 225	<21: <21: <400 Met Arg 1 Lys Leu Pro Asp 65 Phe Leu Cys	1> Li 2> Ti 3> Oi 0> Si Leu -15 Leu Gly Glu Gly 50 Cys Ser Glu Lys	ENGTH YPE: RGAN: EQUEN Gly Ser Leu Gly 35 Glu Val Ser Val Pro 115	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg Pro Lys Glu 100 Asn	Homo 2 Trp Lys 5 Leu His Cys Cys 85 Ile	Thr Ser Arg His Ala Gln 70 Arg Asn	Leu -10 Val Lys Asp Arg 55 Glu Arg Cys	Leu Asn Thr Gly 40 Asp Gly Cys Thr Asn 120	Ala Val 25 Gln Cys Lys Arg Arg 105 Ser	Gln 10 Thr Phe Thr Glu Leu 90 Thr	Val Thr Cys Val Tyr 75 Cys Gln Val	-5 Thr Val His Asn 60 Thr Asp Asn	Asp Glu Lys 45 Gly Asp Glu Thr	Thr 30 Pro Asp Lys Gly Lys 110 His	Asn 15 Gln Cys Glu Ala His 95 Cys	-1 Ser Asn Pro Pro His 80 Gly Arg	
186 187 188 190 192 193 196 197 200 201 204 205 213 216 217 220 221 224 225	<21: <21: <400 Met Arg 1 Lys Leu Pro Asp 65 Phe Leu Cys	1> L: 2> T' 3> O' 0> S' Leu -15 Leu Gly Glu Gly 50 Cys Ser Glu	ENGTH YPE: RGAN: EQUEN Gly Ser Leu Gly 35 Glu Val Ser Val Pro 115	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg Pro Lys Glu 100 Asn	Homo 2 Trp Lys 5 Leu His Cys Cys 85 Ile	Thr Ser Arg His Ala Gln 70 Arg Asn	Leu -10 Val Lys Asp Arg 55 Glu Arg Cys	Leu Asn Thr Gly 40 Asp Gly Cys Thr Asn 120	Ala Val 25 Gln Cys Lys Arg Arg 105 Ser	Gln 10 Thr Phe Thr Glu Leu 90 Thr	Val Thr Cys Val Tyr 75 Cys Gln Val	-5 Thr Val His Asn 60 Thr Asp Asn	Asp Glu Lys 45 Gly Asp Glu Thr	Thr 30 Pro Asp Lys Gly Lys 110 His	Asn 15 Gln Cys Glu Ala His 95 Cys	-1 Ser Asn Pro Pro His 80 Gly Arg	
186 187 188 190 192 193 196 197 200 201 204 205 213 216 217 220 221 224 225	<21: <21: <400 Met Arg 1 Lys Leu Pro Asp 65 Phe Leu Cys	1> Li 2> Ti 3> Oi 0> Si Leu -15 Leu Gly Glu Gly 50 Cys Ser Glu Lys	ENGTH YPE: RGAN: EQUEN Gly Ser Leu Gly 35 Glu Val Ser Val Pro 115	H: 3: PRT ISM: NCE: Ile Ser Glu 20 Leu Arg Pro Lys Glu 100 Asn	Homo 2 Trp Lys 5 Leu His Cys Cys 85 Ile	Thr Ser Arg His Ala Gln 70 Arg Asn	Leu -10 Val Lys Asp Arg 55 Glu Arg Cys	Leu Asn Thr Gly 40 Asp Gly Cys Thr Asn 120	Ala Val 25 Gln Cys Lys Arg Arg 105 Ser	Gln 10 Thr Phe Thr Glu Leu 90 Thr	Val Thr Cys Val Tyr 75 Cys Gln Val	-5 Thr Val His Asn 60 Thr Asp Asn	Asp Glu Lys 45 Gly Asp Glu Thr	Thr 30 Pro Asp Lys Gly Lys 110 His	Asn 15 Gln Cys Glu Ala His 95 Cys	-1 Ser Asn Pro Pro His 80 Gly Arg	

RAW SEQUENCE LISTINGPATENT APPLICATION: **US/09/884,987**DATE: 09/27/2001
TIME: 14:13:38

Input Set : A:\0020-4877P.ST25.txt
Output Set: N:\CRF3\09272001\1884987.raw

232 Ser Asn Thr Lys Cys Lys Glu Glu Gly Ser Arg Ser Asn Leu Gly Trp **233** 145 150 236 Leu Cys Leu Leu Leu Pro Ile Pro Leu Ile Val Trp Val Lys Arq 165 170 240 Lys Glu Val Gln Lys Thr Cys Arg Lys His Arg Lys Glu Asn Gln Gly 180 185 244 Ser His Glu Ser Pro Thr Leu Asn Pro Glu Thr Val Ala Ile Asn Leu 195 200 248 Ser Asp Val Asp Leu Ser Lys Tyr Ile Thr Thr Ile Ala Gly Val Met 210 215 220 252 Thr Leu Ser Gln Val Lys Gly Phe Val Arg Lys Asn Gly Val Asn Glu 230 235 25% Ala Lys Ile Asp Glu Ile Lys Asn Asp Asn Val Gln Asp Thr Ala Glu 245 250 260 Gln Lys Val Gln Leu Leu Arg Asn Trp His Gln Leu His Gly Lys Lys 261 260 265 264 Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys Ala Asn Leu Cys 265 275 280 268 Thr Leu Ala Glu Lys Ile Gln Thr Ile Ile Leu Lys Asp Ile Thr Ser 290 295 300 272 Asp Ser Glu Asn Ser Asn Phe Arg Asn Glu Ile Gln Ser Leu Val 310 276 <210> SEQ ID NO: 3 277 <211> LENGTH: 119 278 <212> TYPE: PRT 279 <213> ORGANISM: Homo sapiens 281 <400> SEQUENCE: 3 283 Gln Asn Leu Glu Gly Leu His His Asp Gly Gln Phe Cys His Lys Pro 284 1 5 286 Cys Pro Pro Gly Glu Arg Lys Ala Arg Asp Cys Thr Val Asn Gly Asp 20 25 289 Glu Pro Asp Cys Val Pro Cys Gln Glu Gly Lys Glu Tyr Thr Asp Lys 4.0 292 Ala His Phe Ser Ser Lys Cys Arg Arg Cys Arg Leu Cys Asp Glu Gly 55 295 His Gly Leu Glu Val Glu Ile Asn Cys Thr Arg Thr Gln Asn Thr Lys 298 Cys Arg Cys Lys Pro Asn Phe Phe Cys Asn Ser Thr Val Cys Glu His 1199 85 90 301 Cys Asp Pro Cys Thr Lys Cys Glu His Gly Ile Ile Lys Glu Cys Thr 100 304 Leu Thr Ser Asn Thr Lys Cys 115 307 < 210 > SEQ ID NO: 4308 -211> LENGTH: 153 309 <212> TYPE: PRT 310 <213> ORGANISM: Homo sapiens 312 <400> SEQUENCE: 4 314 Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys

RAW SEQUENCE LISTING DATE: 09/27/2001 PATENT APPLICATION: US/09/884,987 TIME: 14:13:38

Input Set : A:\0020-4877P.ST25.txt
Output Set: N:\CRF3\09272001\1884987.raw

```
315 1
                                        10
317 Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly
320 Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr
                                4.0
323 Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg
                            55
326 Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp
                        70
                                            75
329 Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu
                    85
                                        90
332 Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val
                                    105
335 His Leu Ser Cys Gln Clu Lys Gln Asn Thr Val Cys Thr Cys His Ala
336 115
                                120
338 Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys
339 130
                            135
341 Lys Ser Leu Glu Cys Thr Lys Leu Cys
342 145
344 <210 > SEQ ID NO: 5
345 <211> LENGTH: 163
346 <212> TYPE: PRT
347 <213> ORGANISM: Homo sapiens
349 <400> SEQUENCE: 5
351 Thr Cys Arg Leu Arg Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys
                                        10
354 Ser Lys Cys Ser Pro Gly Gln His Ala Lys Val Phe Cys Thr Lys Thr
                20
                                    2.5
357 Ser Asp Thr Val Cys Asp Ser Cys Glu Asp Ser Thr Tyr Thr Gln Leu
           35
                                40
                                                    4.5
360 Trp Asn Trp Val Pro Glu Cys Leu Ser Cys Gly Ser Arg Cys Ser Asp
                            55
363 Asp Gln Val Glu Thr Gln Ala Cys Thr Arg Glu Gln Asn Arg Ile Cys
                        70
                                            7.5
366 Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu Ser Lys Gln Glu Gly Cys
367
369 Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg Pro Gly Phe Gly Val Ala
                100
                                    105
372 Arg Pro Gly Thr Glu Thr Ser Asp Val Val Cys Lys Pro Cys Ala Pro
           115
                               120
375 Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr Asp Ile Cys Arg Pro His
                            135
378 Gln Ile Cys Asn Val Val Ala Ile Pro Gly Asn Ala Ser Met Asp Ala
379 145
                        150
                                            155
381 Val Cys Thr
384 <210> SEQ ID NO: 6
385 <211> LENGTH: 159
386 <212> TYPE: PRT
387 <213> ORGANISM: Homo sapiens
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/884,987

DATE: 09/27/2001

TIME: 14:13:39

Input Set : A:\0020-4877P.ST25.txt

Output Set: N:\CRF3\09272001\1884987.raw